

REMARKS

The present Amendment is in response to the Office Action dated March 19, 2003 in reference to the above-identified application. The Examiner set a shortened statutory period for reply of three (3) months, making the present Amendment due by June 19, 2003. Filed concurrently herewith is a request for a three-month extension of time so that the present Amendment is due by September 19, 2003.

At the outset, the Examiner has objected to Figure 1 of the drawings because element 16 is incorrectly labeled as the "BRINE DRAW CYCLE". Appropriate correction has been made to Figure 1 so that element 16 is labeled as "WASTE DRAW CYCLE". Accordingly, submitted herewith is an "Annotated Sheet Showing Changes", wherein the word "WASTE" is written in red to indicate that element 16 has been amended. In addition, Applicant has submitted herewith a "Replacement Sheet" without markings, of amended Figure 1.

In the Office Action claims 1-30 were pending. Applicant notes with appreciation that the Examiner has indicated claims 1-9, 11, 13-17, and 28-30 have been allowed. Claims 10, 12, and 18-27, however, are rejected under 35 U.S.C. § 112. More specifically, claims 18, 19 and 21-24 are rejected under 35 U.S.C. § 112 second paragraph as based on a disclosure that is not enabling. Additionally, claims 10, 12 and 18-27 are rejected under 35 U.S.C. § 112 first paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Claims 10 and 12 have been rejected under 35 U.S.C. § 112 second paragraph because trademarks have been recited in the claims. Applicant

has cancelled claim 10 and has amended claim 12 to address the Examiner's concerns. Claim 12 has been amended to recite that the ion-exchange resin is "a fine mesh resin having a bead diameter of approximately 16-70 mesh" in place of Purolite SST and Purolite C100FM. Applicant has also amended the specification on page 15 to indicate that Purolite resins are classified as "Fine Mesh" resins and have relatively small diameter bead sizes that may range from approximately 16 US mesh to 70 US mesh. Applicant does not believe that these amendments add new matter because Purolite resins were originally disclosed in the application and thus information related thereto is incorporated by reference. Attached as Exhibit A is literature relating to Purolite SST and Purolite C100FM resins. Accordingly, Applicant believes that claim 12 is now in condition for allowance

The Examiner has rejected claim 18 under 35 U.S.C. § 112 second paragraph as incomplete and indefinite based upon the use of the word "contacting" in step (c) and the word "collecting" in step (d). Applicant has amended claim 18 so as to amend step (c) and add steps (d), (e), and (f) to the claim. Applicant believes that such amendments have addressed the Examiner's concerns.

Turning next to claim 27, the Examiner has rejected the claim due to the term "any" in steps (a), (c), (e), and (g) taking the position that the term "any" is vague and indefinite. Accordingly, Applicant has replaced the occurrence of "any" in the claim with "a quantity of" to address the Examiner's concerns. According to this amendment, applicant believes that claim 27 is now in condition for allowance.

The Examiner has also rejected claims 18, 19, and 21-24 under 35 U.S.C. § 112 first paragraph and has taken the position that "the claims fail to recite the apparently essential 'rinse/brine refill cycle" and therefore these claims are not enabled by the disclosure. Applicant respectfully disagrees that claims 18, 19, and 21-24 as originally set forth and as currently amended, are not enabled by the disclosure based upon *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976), which is the case cited by the Examiner to support his position.

In *In re Mayhew*, the court found that one of the necessary criteria needed to achieve the desired alloy coating involves the employment of a cooling zone in the spelter bath at the point where the steel strip exists from the bath. *In re Mayhew*, 527 F.2d 1229 at 1232-1233. More particularly, the court found that

without a cooling zone at the exit side, the unusually high bath temperature would cause alloying to continue when the strip leaves the bath (due to its high temperature) and result, for various reason, in an inferior alloy coating.

Id at 1233.

This understanding led the court to the conclusion that both the cooling bath and its location were "essential" to forming the alloy coating. *Id*. In other words, the alloy coating could not be formed without the cooling bath at a particular location. As a result, the court held that those claims that failed to recite the use of a cooling zone, specially located, were unsupported by an enabling disclosure, thus sustaining the Examiner's rejections of these claims under 35 U.S.C. § 112.

In the present Office Action, the Examiner has taken the position that the rinse/brine refill cycle is essential to the method of softening water. However, Applicant points out to the Examiner that water is softened in the service cycle, which occurs before the rinse/brine refill cycle is initiated. Accordingly, softened water can be achieved without the rinse/brine refill cycle step. Applicant agrees that after repeated use of the water softening apparatus, the resin vessel requires regeneration to continue to operate, which later triggers the rinse/brine refill cycle. However, up until this point, the apparatus may fully function to soften hard water. Accordingly, Applicant asserts that the rinse/brine refill cycle is not "essential", in the same way as the cooling bath was essential to the claims at issue in *In re Mayhew* and thus failing to recite this step in claim 18 does not render the claim invalid under 35 U.S.C. § 112 first paragraph. As such, Applicant believes that claim 18 and its dependent claims 19-26 are in condition for allowance.

Finally, Applicant notes for the Examiner's attention the addition of new independent claim 31. This claim is essentially claim 18, as currently amended, with the addition of step (g) the rinse/brine refill cycle.



Annotated Sheet Showing Changes

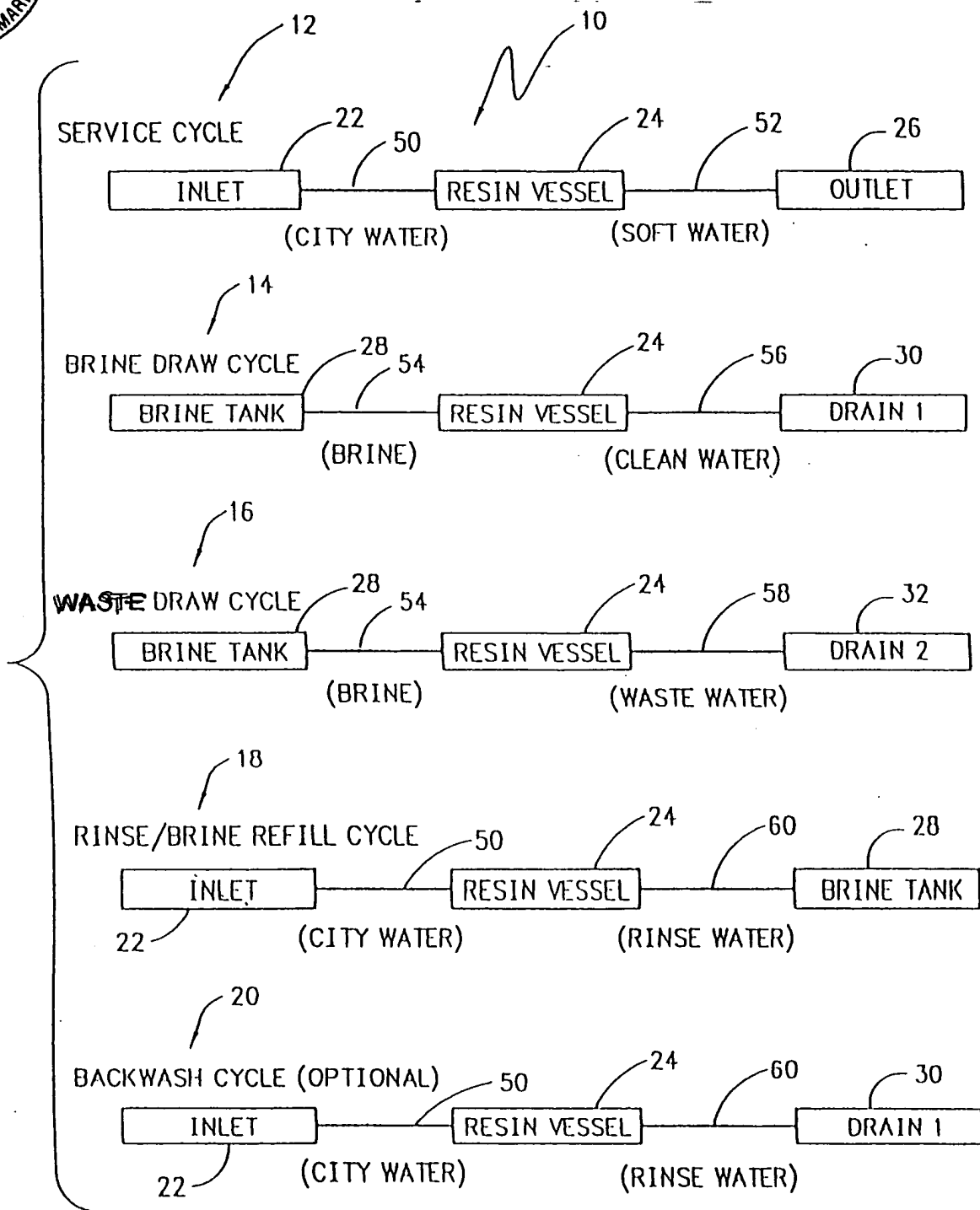


Fig.1